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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------------------|-----------------------------|
| 10/559,956 | 03/09/2006 | Robert N. Phillips | MSP637 PCT 1 | 2476 |
| <div>137 7590 05/18/2007 DOW CORNING CORPORATION CO1232 2200 W. SALZBURG ROAD P.O. BOX 994 MIDLAND, MI 48686-0994</div> | | | | |
| | | | EXAMINER PARSA, JAFAR F | |
| | | | ART UNIT 1621 | PAPER NUMBER |
| | | | NOTIFICATION DATE 05/18/2007 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents.admin@dowcorning.com

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/559,956 | Applicant(s) PHILLIPS ET AL. | |
| | Examiner Jafar Parsa | Art Unit 1621 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>12/8/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim 6 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim can not depend on another multiple dependent claim. See MPEP § 608.01(n).

Specification

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

The following headings are required for a utility application under 37 CFR 1.77(b)

- a) title of the invention,
- b) cross-reference to related application,
- c) background of the invention,
- d) summary of the invention,
- g) **brief description of drawings**, and
- h) detailed description of the invention.

Appropriate corrections are required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1621

Claims 1-3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Haines et al (USPN 5,395,956).

Haines teaches a process for preparing cyclic organohydrogensiloxanes. The process comprises contacting a silane of the formula $RHSiCl_2$ where R is selected from the group consisting of saturated monovalent hydrocarbon radicals comprising one to 12 carbon atoms and aryl radicals with water to form a hydrolyzate. The hydrolyzate is diluted in an inert solvent and contacted with an acidic rearrangement catalyst to effect formation of cyclic organohydrogensiloxanes. The cyclic organohydrogensiloxanes are then separated from inert solvent and linear organohydrogensiloxanes. The inert solvent and linear organohydrogensiloxanes are then recycled to the process for further contact with the acidic rearrangement catalyst. See col. 2, lines 36-68.

Haines teaches that the acidic rearrangement catalyst can be a protic acid or a Lewis acid. The acidic rearrangement catalyst can be a homogeneous catalyst such as hydrogen chloride, sulfuric acid, or chlorosulfonic acid or sulfonated divinylbenzenestyrene. See col. 4, lines 9-12 and col. 5, lines 19-22.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haines et al (USPN 5,395,956).

Applicants' claimed invention is directed to a process for preparing cyclic organohydrogensiloxanes comprising: (A) contacting a silane of the formula RHSiCl_2 , where R is selected from alkyl radicals having 1 to 12 carbon atoms and aryl radicals, with water to form a hydrolyzate comprising cyclic organohydrogensiloxanes and linear organohydrogensiloxanes, and (B) contacting the hydrolyzate with an acidic rearrangement catalyst in the presence of an inert liquid diluent to increase the ratio of the cyclic organohydrogensiloxanes to linear organohydrogensiloxanes in the hydrolyzate, characterised in that the acidic rearrangement catalyst is an organic compound containing a strong acid group which is dissolved in the inert diluent present. The dependent claims require that the acidic catalyst is an a dodecylbenzenesulphonic acid and the concentration of acidic rearrangement catalyst in the diluent is in the range 0.05 to 5% by weight.

Haines teaches a process for preparing cyclic organohydrogensiloxanes. The process comprises contacting a silane of the formula RHSiCl_2 where R is selected from

Art Unit: 1621

the group consisting of saturated monovalent hydrocarbon radicals comprising one to 12 carbon atoms and aryl radicals with water to form a hydrolyzate. The hydrolyzate is diluted in an inert solvent and contacted with an acidic rearrangement catalyst to effect formation of cyclic organohydrogensiloxanes. The cyclic organohydrogensiloxanes are then separated from inert solvent and linear organohydrogensiloxanes. The inert solvent and linear organohydrogensiloxanes are then recycled to the process for further contact with the acidic rearrangement catalyst. See col. 2, lines 36-68.

Haines teaches that that the acidic rearrangement catalysts useful in this process can be any acid which facilitates rearrangement of linear organohydrogensiloxanes to cyclic organohydrogensiloxanes. The acidic rearrangement catalyst can be a protic acid or a Lewis acid. The acidic rearrangement catalyst can be a homogeneous catalyst such as hydrogen chloride, sulfuric acid, or chlorosulfonic acid or sulfonated divinylbenzenestyrene. See col. 4, lines 9-12 and col. 5, lines 19-22.

The difference between the instant claims and Haines is that the instant claims require that the sulphonic acid is dodecylbenzenesulphonic acid, wherein the concentration of the catalyst in the diluent is in the range 0.05 to 5% by weight. However, Haines teaches that any acid which facilitates rearrangement of linear organohydrogensiloxanes to cyclic organohydrogensiloxanes can be used, for instance Haines teaches that sulphonic acid can be used in this process and docecylbenzenesulphonic acid is a specific type of a sulphonic acid. It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to employ any sulphonic acid with a proper concentration should be added so as to be

Art Unit: 1621

effective to facilitates the rearrangement of linear organohydrogensiloxanes to cyclic organohydrogensiloxanes as suggested by Haines et al.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 2002/0173613 A1 to Tolentino teaches a process for preparing linear organohydrogensiloxanes. The process comprises contacting an organohydrogendichlorosilane in the presence of trimethylchlorosilane with water to form an M-stopped hydrolyzate. The hydrolyzate is optionally preheated prior to being contacted with an acidic rearrangement catalyst to effect formation of linear organohydrogensiloxanes. The linear organohydrogensiloxanes are separated from cyclic organohydrogensiloxanes and recovered. The cyclic organohydrogensiloxanes may then be recycled to the process for further contact with the acidic rearrangement catalyst for maximum overall conversion rate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jafar Parsa whose telephone number is (571)272-0643. The examiner can normally be reached on 8 a.m.-4:30 p.m. (M-F).

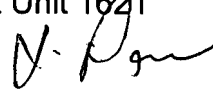
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP
May 8, 2007

Jafar Parsa
Primary Examiner
Art Unit 1621



J. PARSA
PRIMARY EXAMINER